

OM nucleic - nucleic search, using sw model

Run on: January 29, 2007, 11:54:23 ; Search time 1 Seconds  
(without alignments)

Title: US-10-780-507-24-COPY  
Perfect score: 1503  
Sequence: 1 atgagatcagagacatcagt

Scoring table: IDENTITY\_NUC.  
Gapop 10.0 , Gapext 0.5

Searched: 1 seqs, 1532 residues

Total number of hits satisfying chosen parameters: 2

```
Minimum DB seq length: 0
Maximum DB seq length: 2000000000
```

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : US09017981.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result No.	Score	Query Match	Length	ID	Description
1	899.8	59.9	1532	1 US-09-017-981-1	Sequence 1, Appli
2	18.2	1.2	1532	1 US-09-017-981-1	Sequence 1, Appli

```

RESULT 1
US-09-017-981-1
; Sequence 1, Application US/09017981
; GENERAL INFORMATION:
; APPLICANT: Shiver, John W.
; APPLICANT: Davies, Mary Ellen
; APPLICANT: Freed, Daniel C.
; APPLICANT: Liu, Margaret A.
; APPLICANT: Perry, Helen C.
; TITLE OF INVENTION: Synthetic HIV Gag Genes
; NUMBER OF SEQUENCES: 1
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Merck & Co., Inc.
; STREET: P. O. Box 2000, 125 E. Lincoln Ave.
; CITY: Rahway
; STATE: NJ
; COUNTRY: USA
; ZIP: 07065-0900
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: Windows
; SOFTWARE: FASTSQ for Windows Version 2.0b
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/017,981
; FILING DATE: 03-FEB-1998

```

Qy	661	GGCGCTATTGCCACGAGCCGATGAGAGAACCAAGGGGAAGTGCACATACGAGGAACCTACT	720
Db	670	GGCCCCAATGCCCGGCCGAGATGAGGAGGCCCAGGGGCTCTGACATGCTGGCAACACC	729
Qy	721	AGTACCCCTTCAGGAACAAATAGCATGATGATGACAAAATAATCCACTATCCCAAGTAGGAGAA	780
Db	730	TCCACCCCTCCAGGAGCAGATTGGCTGGATGACCAACAAACCCCTCCCTGTGGGGGAA	789
Qy	781	ATCTATAAAGATGGGATAATCTCTGGGATTAATAATAAATAGTAAGATGATATAGCCCTGTG	840
Db	790	ATCTACAAGAGGTGGATTCATCTCTGGGCTGAACAAGATTGTGAGGATGTTACTCCCCAC	849
Qy	841	AGCAATCTTGACACATAAGACAAGGACCAAGGAACCCCTTTAGACACTATGTAGACCCGTTTC	900
Db	850	TCCATCTGNCATCAGGCAGGGCCCCCAGGAGCCCTTCAGGACNCTATGTGGACAGGTTTC	909
Qy	901	TATAAACTCTAAGAGCCGAGCAAGCTTCAACAGAGGTAAATAATTTGATGACAGAAACC	960
Db	910	TACAAGACCTCTAGGGCTGAGCAGGCCCTCCAGGAGGTGAAGAACTCGATGACAGAGACC	969
Qy	961	TTGTTGCTCCAAATGCGAACCCACAGATTGTGAAGACTATCTTAAAGCATTTGGACACAGGA	1020
Db	970	CTGCTGTGCAGAAATGCCAACCTGACTGCAAGACCATCTCTGAAGGCCCTTGGGCCCTGTCT	1029
Qy	1021	GCTACACTAGAAAGAAATGATGACAGCACTGTCAAGGAGTGGGGGAGCCCGGCCCATAAAGCA	1080
Db	1030	GCCACCTCTGGAGAGATGATGACAGCTGCCAGGGGTGGGGGCCCTGTGTCAAGGCC	1089
Qy	1081	AGAGTTTGTGGCTGAAGCAATGAGGCCAAGTAACAAATTCAGCTACCATTAATGATGCAAGAGA	1140
Db	1090	AGGTTGCTGGCTGAGGCCATGTCTCCAGGTGACCAACTCCGCCACCATCATGATGCAAGG	1149
Qy	1141	GGCAATTTTAGGAACCCACAAGAACACTGTTAAGTGTTCATTTGTGGCAAGAAGGGCAC	1200
Db	1150	GGCAACTTTCAGAAACCAAGAGGACAGTGAAGTGTCTCAACTGTGGCAAGTTGGGCCAC	1209
Qy	1201	ATAGCCAGAAATTGACGGGCCCTTAGGAAAAGGGCTGTTTGGAAATGTGAAAGGAAGGA	1260
Db	1210	ATTGCCAAGAACTGTAGGGCCCCCAGGAAAGAGGGCTGTCTGGAAGTGTGGCAAGGAGGC	1269
Qy	1261	CACCAATGAAGATTGCTACTGACAGACAGGCTAAATTTTGTGGGAAATCTGGCCCTTCC	1320
Db	1270	CACCAGATGAAGACTGCAATGAGAGGAGGCCAACTCTCTGGGCAAAATCTGTGCCCTCC	1329
Qy	1321	CACAAGGGAAGGCCAGGGAATTTTCTTCAGAGCAGACCAAGGCCCCAACAGCCCCCACGA	1380
Db	1330	CACAAGGGCAGGCTTGGGCAACTTCTTCAGTCCAGGCTGAGGCCACAGCCCCCTCCCGAG	1389
Qy	1381	GAGAGCTTCAGGTTTGGGGAAGACACAACTCCCTCTCAGAGCAGGAGCAGGAAGAC	1440
Db	1390	GAGTCTCTCAGTTTGGGGAGGAAGACCACCCCCAGACCGCAAGACGAGGAGCCCATTTGAC	1449
Qy	1441	AAGGAACGTATCTTTAGCTTCCTCAAACTCACTCTTTGGCAACGACCCCTCGTCAAA	1500
Db	1450	AAGAGCTGTACCCCTGGCCCTCCTGAGGTTCTCTGTTTGGCAACGACCCCTCTCTCCAG	1509
Qy	1501	TAA	1503
Db	1510	TAA	1512

```

RESULT 2
US-09-017-981-1/c
; Sequence 1, Application US/09017981
; GENERAL INFORMATION:
; APPLICANT: Shiver, John W.
; APPLICANT: Davies, Mary Ellen
; APPLICANT: Freed, Daniel C.
; APPLICANT: Liu, Margaret A.
; APPLICANT: Perry, Helen C.
; TITLE OF INVENTION: Synthetic H
; NUMBER OF SEQUENCES: 1
; CORRESPONDENCE ADDRESSES:

```

ADDRESSEE: Merck & Co., Inc.  
STREET: P.O. Box 2000, 126 E. Lincoln Ave.  
CITY: Rahway  
STATE: NJ  
COUNTRY: USA  
ZIP: 07065-0900  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette  
COMPUTER: IBM Compatible  
OPERATING SYSTEM: Windows  
SOFTWARE: FastSeq for Windows Version 2.0b  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/017,981  
FILING DATE: 03-FEB-1998  
CLASSIFICATION: 536  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US60/037,854  
FILING DATE: 07-FEB-1997  
APPLICATION NUMBER: GB9705040.5  
FILING DATE: 12-MAR-1997  
ATTORNEY/AGENT INFORMATION:  
NAME: Hand, J. Mark  
REGISTRATION NUMBER: 36,545  
REFERENCE/DOCKET NUMBER: 19730  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 732-594-3905  
TELEFAX: 732-594-4720  
TELEX:  
INFORMATION FOR SEQ ID NO: 1:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 1532 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: both  
MOLECULE TYPE: cDNA  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
US-09-017-981-1

Search completed: January 29, 2007, 11:54:25  
Job time : 1.33333 secs

GenCore version 6.2  
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OM nucleic - nucleic search, using sw model

Run on: January 29, 2007, 11:54:23 ; Search time 1 Seconds  
(without alignments)  
13.816 Million cell updates/sec

Title: US-10-780-507-25-COPY  
Perfect score: 1503  
Sequence: 1 atggatcgagagagcgtcagt.....acgacccctcgtcacaataa 1503

Scoring table: IDENTITY NUC  
Gapop 10.0 , Gapext 0.5

Searched: 1 seqs, 1532 residues

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0



QY 1021 GCTACACTAGAAATGATGACAGCATGTGAGGAGTGGGGGACCCGCGCAATAAGCA 1080  
Db 1030 GCACCCCTGGAGAGATGATGACAGCTGCGCAGGGGTGGGGGCGCTGTGTCAAGGGC 1089  
QY 1081 AGAGTTTGGCTGAAGCAATGAGCAAGTAAACAAATTCAGCTACCAATATGATGACAGAGA 1140  
Db 1090 AGGGTGTGGCTGAGGCGCATGTCCAGGTGACCAACTCCGCCACCATCATGATGACAGAG 1149  
QY 1141 GCGAATTTAGGAACCAAGAAAGACTGTTAAGTGTTCATTTGTGCAAGAGGGCAC 1200  
Db 1150 GGCACCTTCAGGAACCAAGAGAGACAGTGAAGTGTCTTCACTGTGCGAGGTGGGCCAC 1209  
QY 1201 ATAGCCAAAATTCAGGGGCGCTTAGGAAAAGGGCTGTGGAAATGTGAAAAGGAGGA 1260  
Db 1210 ATTGCCAAGACTGTAGGGGCGCCCGAGGAAGAGGGCTGTGGAAGTGTGCAAGGAGGGC 1269  
QY 1261 CACCAATGAAGATTTACTGAGAGACAGGCTAAATTTTTAGGGAAGATCTGGCCTTCC 1320  
Db 1270 CACCAGATGAAGACTGCAATGAGAGCGGCGCACTTCTTGGGCAAAATCTGGCCTCC 1329  
QY 1321 CACAAGGAGGAGCGAGGAATTTCTTCAGAGCAGACGAGGCAACAGCCCCCAGAGAA 1380  
Db 1330 CACAAGGAGGAGCGGCTGCGCACTTCTTCCAGTCCAGGCGCTGAGGCCACAGCCCCCTCCGAG 1389  
QY 1381 GAGAGCTTCAGTTTGGGAGAGAGACAACTCCCTCTCAGAGCAGGAGCGCATAGAC 1440  
Db 1390 GAGTCTTTCAGTTTGGGAGGAGAGAGACCAACCCCCAGAGCAGGAGGAGCCCATGAC 1449  
QY 1441 AAGGAATCTATCTTTAGCTTCCCTCAGATCACTTTTGGCAACGACCCCTCGTCACAA 1500  
Db 1450 AAGGAGCTGTACCCCTGGGCTTCCCTGAGTCTCTTGGGAAAGGAGGAGGAGGAGG 1509  
QY 1501 TAA 1503  
Db 1510 TAA 1512

RESULT 2  
US-09-017-981-1/c  
; Sequence 1, Application US/09017981  
; GENERAL INFORMATION:  
; APPLICANT: Shiver, John W.  
; APPLICANT: Davies, Mary Ellen  
; APPLICANT: Freed, Daniel C.  
; APPLICANT: Liu, Margaret A.  
; APPLICANT: Perry, Helen C.  
; TITLE OF INVENTION: Synthetic HIV Gag Genes  
; NUMBER OF SEQUENCES: 1  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Merck & Co., Inc.  
; STREET: P.O. Box 2000, 126 E. Lincoln Ave.  
; CITY: Rahway  
; STATE: NJ  
; COUNTRY: USA  
; ZIP: 07065-0900  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Diskette  
; COMPUTER: IBM Compatible  
; OPERATING SYSTEM: Windows  
; SOFTWARE: FASTSEQ For Windows Version 2.0b  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/09/017,981  
; FILING DATE: 07-FEB-1997  
; FILING DATE: 03-FEB-1998  
; CLASSIFICATION: 536  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US60/037,854  
; FILING DATE: 07-FEB-1997  
; APPLICATION NUMBER: GB9705040.5  
; FILING DATE: 12-MAR-1997  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Hand, J. Mark  
; REGISTRATION NUMBER: 36,545

REFERENCE/DOCKET NUMBER: 19730  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 732-594-3905  
TELEFAX: 732-594-4720  
TELEX:  
INFORMATION FOR SEQ ID NO: 1:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 1532 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: both  
MOLECULE TYPE: cDNA  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
US-09-017-981-1

Query Match 1.3%; Score 19.6; DB 1; Length 1532;  
Best Local Similarity 54.1%; Pred. No. 0;  
Matches 40; Conservative 0; Mismatches 34; Indels 0; Gaps 0;  
QY 342 GGCACAGCAGCAGCAGCTGACACAGGAAACAGCAGCAGGTCAGCCAAATACCCAT 401  
Db 397 GGGACACCTGGCTGGAGTTGCTGTGCCAGCAGCAGCTGCTGGGCGCTTCTTCTGACT 338  
QY 402 AGTGCAGACCTCC 415  
Db 337 TGTCTGTCTCTCC 324

Search completed: January 29, 2007, 11:54:25  
Job time: 0.333333 secs

GenCore version 6.2

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OM nucleic - nucleic search, using sw model

Run on: January 29, 2007, 11:54:23 ; Search time 1 Seconds  
(without alignments)  
13.816 Million cell updates/sec

Title: US-10-780-507-26-COPY  
Perfect score: 1503  
Sequence: 1 atgggtgaggagcgtcggt.....acgaccatcgcaataa 1503

SEQ ID NO: 26

Scoring table: IDENTITY NUC  
Gapop 10.0 , Gapext 0.5

Searched: 1 seqs, 1532 residues

Total number of hits satisfying chosen parameters: 2

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : US09017981.seq.\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	877.4	58.4	1532	1	US-09-017-981-1
2	18.2	1.2	1532	1	US-09-017-981-1

Sequence 1, Appli  
Sequence 1, Appli

## ALIGNMENTS

## RESULT 1

US-09-017-981-1  
 : Sequence 1. Application US/09017981  
 : GENERAL INFORMATION:  
 : APPLICANT: Shiver, John W.  
 : APPLICANT: Davies, Mary Ellen  
 : APPLICANT: Freed, Daniel C.  
 : APPLICANT: Liu, Margaret A.  
 : APPLICANT: Petty, Helen C.  
 : TITLE OF INVENTION: Synthetic HIV Gag Genes  
 : NUMBER OF SEQUENCES: 1  
 : CORRESPONDENCE ADDRESS:  
 : ADDRESSEE: Merck & Co., Inc.  
 : STREET: P.O. Box 2000, 126 E. Lincoln Ave.  
 : CITY: Rahway  
 : STATE: NJ  
 : COUNTRY: USA  
 : ZIP: 07065-0900  
 : COMPUTER READABLE FORM:  
 : MEDIUM TYPE: Diskette  
 : COMPUTER: IBM Compatible  
 : OPERATING SYSTEM: Windows  
 : SOFTWARE: FastSeq for Windows Version 2.0b  
 : CURRENT APPLICATION DATA:  
 : APPLICATION NUMBER: US/09/017,981  
 : FILING DATE: 03-FEB-1998  
 : CLASSIFICATION: 536  
 : PRIOR APPLICATION DATA:  
 : APPLICATION NUMBER: US60/037,854  
 : FILING DATE: 07-FEB-1997  
 : APPLICATION NUMBER: GB9705040.5  
 : FILING DATE: 12-MAR-1997  
 : ATTORNEY/AGENT INFORMATION:  
 : NAME: Hand, J. Mark  
 : REGISTRATION NUMBER: 36,545  
 : REFERENCE/DOCKET NUMBER: 19730  
 : TELECOMMUNICATION INFORMATION:  
 : TELEPHONE: 732-594-3905  
 : TELEFAX: 732-594-4720  
 : TELEX:  
 : INFORMATION FOR SEQ ID NO: 1:  
 : SEQUENCE CHARACTERISTICS:  
 : LENGTH: 1532 base pairs  
 : TYPE: nucleic acid  
 : STRANDEDNESS: double  
 : TOPOLOGY: both  
 : MOLECULE TYPE: cDNA  
 : HYPOTHETICAL: NO  
 : ANTI-SENSE: NO  
 : US-09-017-981-1

Query Match 58.4%; Score 877.4; DB 1; Length 1532;  
 Best Local Similarity 74.0%; Pred. No. 0;  
 Matches 1112; Conservative 0; Mismatches 391; Indels 0; Gaps 0;  
 QY 1 ATGGGTGCGGAGCGTGGTATTAAAGCGGGGAAATTAGATAGTGGGAAATAATTCGG 60  
 DB 10 ATGGGTGCTAGGCGTCTGTGCTGTCTGTGGTGGAGCTGGACAAAGTGGGAGAGATCAGG 69  
 QY 61 TTAAGCGCGGGAAGAAATAATAATAATAATTAAGCATATAGTATGGGCAAGCAGGAG 120  
 DB 70 CTGAGCGCTGTGGCAGAGAGAGTACAGCTAAAGCACAATTGTGGGCTCCAGGAG 129  
 QY 121 CTAGAACGATTTCAGTCAATCTCGGCTGTAGAAACATCAGAGGCTCAGACGAATA 180  
 DB 130 CTGGAGAGGTTTGTGTGAACCTTGGCTCTGGAGACCTCTGAGGGTTCAGGCAGATC 189  
 QY 181 CTGGACAGCTACATCCATCCCTTCAGACAGGATCAGAACTTAATCATTTATATAT 240

DB 190 CTGGCCAGCTCCAGCCCTCCCTGCAACAGAGCTCTGAGGAGCTAGGTCCTGTACAC 249  
 QY 241 ACGGTAGCAACCTCTATTGTGTGATCAAAATATAGAGGTAAAGACACCAAGGATGCT 300  
 DB 250 ACAGTGGCTAGCCCTGTACTGTGTGCAACAGAGATTGTGTGAAGGACCAAGAGGCC 309  
 QY 301 TTAGAAAAATAGAGGAGAACAAACAAAATTTAGAAAAGGGCAGCAGACGACAGCT 360  
 DB 310 CTGGAGAAAGATTGAGGAGAGCGAAGCAAGTCCAAGAGAGAGGCCAGCAGGCTGTGCT 369  
 QY 361 GACACAGGAAACAGCAACCCCGGTAGCCAAATATTACCTTATAGTGCAGATATGCAAGGG 420  
 DB 370 GGCACAGGCAACTCCAGCCAGGTGTCCAGAGACTACCCCATTTGTGCAGAACCTCCAGGGC 429  
 QY 421 CAAATGGTACATCAGGCCATATCACTAGAACTTTAAATGCAATGGGTAAAGTAGTAGAA 480  
 DB 430 CAGATGGTGCACAGGCCATCTCCCCCGGACCTGAATGCTGGGTGAAGGTGGTGAG 489  
 QY 481 GAGAGGGCTTTACAGCCCGAGAGTATACCCATGTTTTCAGCATTTATCAGAAAGGACCCACC 540  
 DB 490 GAGAAAGGCTTCTCCCTGAGGTGATCCCATGTTCTCTGCCCCGTGTCTGAGGGTGCCACC 549  
 QY 541 CCACAAGATTTAAACACCATGCTAAACACAGTGGGGGACATCAAGCAGCCATGCAAAATG 600  
 DB 550 CCCAGGACCTGAACACCATGCTGAACACAGTGGGGGCCATCAGGCTGCCATGCAGATG 609  
 QY 601 TTAAAGAAACCATCAATGAGGAACTGAGAAATGGATAGATATGCAACCCAGTGCATGCA 660  
 DB 610 CTGAAGGAGACCATCAATGAGGAGCTGTGAGTGGGACAGAGCTGCTGTGTGACGCT 669  
 QY 661 GGGCTTATGACAGGCCAGATGAGAAACCAAGGGGAGTGCATACAGCAAGAACTACT 720  
 DB 670 GGGCCCATTTGCCCGCCAGATGAGGGAGCCAGGGCTCTGACATTTGCTGGCACCCACC 729  
 QY 721 AGTACCTTTAGGAAACAAATAGGATGGATGACACATAATCCACCTATCCAGTAGGAGAA 780  
 DB 730 TCCACCTCCAGGAGCAGATTGCTGGATGACCAACACCCCCCATCTCTGTGGGGAA 789  
 QY 781 ATCTATAAAGATGGATTAATCATGGATTAATAAATAGTAAGATGTATAGCCCTTACC 840  
 DB 790 ATCTACAAGAGGTGGATCATCTCGGCTCTGAACAAGATTGTGAGGATGTACTCCCCACC 849  
 QY 841 AGCATTTCTGACATTAAGACNAGGACCAAGGAGACCTTTAGAGATTATGTTGACCGGTC 900  
 DB 850 TCCATCTCGACATCAGGAGGCCCCCAAGAGGCTTCCAGGACTATGTGGACAGGTTTC 909  
 QY 901 TATAAACTCTAAGAGCCGAGCAAGCTTCAAGGAGGTAAATAATTTGGATGACAGAAACC 960  
 DB 910 TACAAGACCTTGAGGCTGAGCAGGCTCTCCAGGAGGTGAGNACTGGATGACAGAGACC 969  
 QY 961 TTGTTGGTCCAAAATTCGAAACCCAGATTTAGACCAATTTTAAAGCATTTAGACCAAGCA 1020  
 DB 970 CTGCTGGTGCAGATGCCAACCTCTGACTCAAGAGCCATCTCTGAAGGCCCTGGGCCCTGT 1029  
 QY 1021 GCTACACTAGAAATAATGATGACAGCATGTGAGGAGTGGAGGGGCCAGCCATTAAGCA 1080  
 DB 1030 GGCACCTCTGAGGAGATGATGACAGCTCCAGGGGGTGGGGGGCCCTGTGTCAAGGCC 1089  
 QY 1081 AGAGTTTTTGGCAGAGCAATGAGCCAAAGCAAAATTCAGCTACCAATATGATGACAGG 1140  
 DB 1090 AGGTGCTGCTGAGGCCATGTCCCAAGTGAACCACTCCGCCACCATCATGATGACAGG 1149  
 QY 1141 GGCATTTTAAAGGGCCAAAGAAAGACTGTAAATGTTTCAATTTGTGGCAAGAGGGCAC 1200  
 DB 1150 GGCNACTTCAGGAACCCAGAGGAGACAGTGAAGTGTCTCAACTGTGGCAAGGTGGGCCAC 1209  
 QY 1201 ATAGCCAGAAATTCAGGGCCCTTAGAAAAAAGGGCTGTGGAAATGTGCAAGAGGAGGA 1260  
 DB 1210 ATTGCCAAGAACTGTAGGGCCCCCAGGAAGAGGGCTGTGGAGTGTGCAAGAGGAGGC 1269  
 QY 1261 CACCAATCAAGAGATTGTACTGAGACAGAGGCTTAATTTTTTAGGGAAGATCTGGCCCTTC 1320

Db 1270 CACCAGATGAAGGACTGCAATGAGAGGCGCAACTTCTGGGCAAAATCTGGCCCTCC 1329  
 Qy 1321 CACAAGGGAGGCGCAGGGAATTTCTCCAAAGAGGCGCAGACCAAGCCCCCACCAGAA 1380  
 Db 1330 CACAAGGGAGGCGCAGGCACTTCTCCCACTGAGGCGCTGAGGCCACAGCCCCCTCCCGAG 1389  
 Qy 1381 GAGAGCTTCAAGTTTGGGGAGGAGACAACTCCCTCCAGAGGAGGCGGAGGAC 1440  
 Db 1390 GAGTCTTCAAGTTTGGGGAGGAGAGACCACTCCAGCCAGAGGAGGAGCCCTGAC 1449  
 Qy 1441 AAGGAACAGTATCCCTTGACTTCCCTCAGATCACTTTTGGCAACGACCCATCGTCACAA 1500  
 Db 1450 AAGGAGCTGTACCCCTGGCTCCCTGAGGTCCCTGTTGGCAAGGACCCCTCTCCCGAG 1509  
 Qy 1501 TAA 1503  
 Db 1510 TAA 1512

RESULT 2

US-09-017-981-1/C  
 ; Sequence 1, Application US/09017981  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Shiver, John W.  
 ; APPLICANT: Davies, Mary Ellen  
 ; APPLICANT: Freed, Daniel C.  
 ; APPLICANT: Liu, Margaret A.  
 ; APPLICANT: Perry, Helen C.  
 ; TITLE OF INVENTION: Synthetic HIV Gag Genes  
 ; NUMBER OF SEQUENCES: 1  
 ; CORRESPONDENCE ADDRESS:  
 ; ADDRESSEE: Merck & Co., Inc.  
 ; STREET: P.O. Box 2000, 126 E. Lincoln Ave.  
 ; CITY: Rahway  
 ; STATE: NJ  
 ; COUNTRY: USA  
 ; ZIP: 07065-0900  
 ; COMPUTER READABLE FORM:  
 ; MEDIUM TYPE: Diskette  
 ; COMPUTER: IBM Compatible  
 ; OPERATING SYSTEM: Windows  
 ; SOFTWARE: FastSeq for Windows Version 2.0b  
 ; CURRENT APPLICATION DATA:  
 ; APPLICATION NUMBER: US/09/017,981  
 ; FILING DATE: 03-FEB-1998  
 ; CLASSIFICATION: 536  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: US60/037,854  
 ; FILING DATE: 07-FEB-1997  
 ; APPLICATION NUMBER: GB9705040.5  
 ; FILING DATE: 12-MAR-1997  
 ; ATTORNEY/AGENT INFORMATION:  
 ; NAME: Hand, J. Mark  
 ; REGISTRATION NUMBER: 36,545  
 ; REFERENCE/DOCKET NUMBER: 19730  
 ; TELECOMMUNICATION INFORMATION:  
 ; TELEPHONE: 732-594-3905  
 ; TELEFAX: 732-594-4720  
 ; TELEX:  
 ; INFORMATION FOR SEQ ID NO: 1:  
 ; SEQUENCE CHARACTERISTICS:  
 ; LENGTH: 1532 base pairs  
 ; TYPE: nucleic acid  
 ; STRANDEDNESS: double  
 ; TOPOLOGY: both  
 ; MOLECULE TYPE: cDNA  
 ; HYPOTHETICAL: NO  
 ; ANTI-SENSE: NO  
 ; US-09-017-981-1

Query Match. 1.2%; Score 18.2; DB 1; Length 1532;  
 Best Local Similarity 61.7%; Pred. No. 0;  
 Matches 29; Conservative 0; Mismatches 18; Indels 0; Gaps 0;

Qy 1293 TAAATTTTATAGGAAAGATCTGGCTTCCCAAGGGAAGGCCAGGGA 1339  
 Db 1517 TTATTTTACTGGGAGGAGGGGTCTGTGTCACAAACAGGGACCTCAGGGA 1471

Search completed: January 29, 2007, 11:54:25  
 Job time : 0.333333 secs



```
1101 GAGCCAAAGTAACAAATTCAGCTACATAATATGACAGAGAGGCAATTTTA 1150
1102 ATGTGCGCTTCTTTTGGCACAATTAACACACTTAACAGTCTTTCTTTGGTT 1153
370 tSerGlnValThrAenSerAlaThrIleMetMetGlnArgGlyAenPheA 387
1151 GGAACCAAGAAAGACTGTTAAAGTGTTCATTTGCGCAAGAGAGGCGCAC 1200
387 rGlnGlnAArgLysThrValLysCysPheAenCysGlyLysValGlyHis 403
1201 ATAGCCAAAATTCAGGGCCCTTAGGAAAAAGGGCTTTTGGAAATGTGG 1250
404 IleAlaLysAenCysArgAlaProArgLysLysGlyCysTrpLysCysG 420
1251 AAGGAAGGACCAACAAATGAAGATTGTACTGAGAGACAGAGCTAATTTT 1300
420 YLysGluGlyHisGlnMetLysAspCysAenGluArgGlnAlaAenPheL 437
1301 TAGGGAAGATCTGCGCTCCACAGGAGGAGCCAGGGAATTTCTTCAG 1350
437 euGlyLysIleTrpProSerHisLysGlyArgProGlyAenPheLeuGln 453
1351 AGCAGACAGAGCCACAGCCCAAGAGAGAGCTTCAGGTTGGGGA 1400
454 SerArgProGluProThrAlaProProGluGluSerPheArgPheGlyG 470
1401 AGAGACAACAACTCCCTCTCAGAGCAGGAGCCGATAGACAGGAAGTGT 1450
470 uGluLysThrThrProSerGlnLysGlnGluProIleAspLysGluLeuT 487
1451 ATCTTTAGTCTCCCTGAGATCACTTTTGGCAAGCAGCCCTCGTCACAA 1500
487 yrProLeuAlaSerLeuArgSerLeuPheGlyAenAspProSerSerGln 503
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Sequence name: new.pdp2.US-09-017-981-1-FRAME4

Sequence documentation:

; Entered [bobryen 29-Jan-07 12:02]

US-09-017-981-1-FRAME4

Alignment of: US-10-780-507-25-COPY x US-09-017-981-1-FRAME4

Alignment segment 1/1: (-)

Quality:	2015.00	Score:	4.62e-08
Matching length:	500	Total length:	500
Matching Percent Similarity:	90.60	Matching Percent Identity:	79.60
Total Percent Similarity:	90.60	Total Percent Identity:	79.60
Gaps:	0	Stops:	13

Alignment:

```
1502 TATTGTGACGAGGGCTGTGCAAGAGTGTATCTGAGGAGACTTAAGG 1453
8 TyrTrpGluGluGlySerLeuProAenArgAspLeuArgGluAlaArgG 24
1452 ATACAGTTCTTGTCTATCGGCTCTGCTTCGAGAGGAGTGTGTCT 1403
24 yTyrSerSerLeuSerMetGlySerCysPheTrpLeuGlyValValPheS 41
1402 CTTCGCCAAACCTGAAGCTCTCTTCTGTTGGGGCTGTGCTGCTGTG 1353
41 erSerProAenLeuLysAspSerSerGlyGlyAlaValGlySerGlyLeu 57
1352 CTCTGAAGAAATTCCTGCGCTTCCCTTGTGGAGGCGACATCTTCC 1303
58 AspTrpArgLysLeuProGlyLeuProLeuTrpGluGlyGlnIleLeuPr 74
1302 TAAAAAATAGCTGTCTCTCAGTCAATCTTTTCATTGCTGCTTCTCT 1253
74 oArgLysLeuAlaCysLeuSerLeuGlnSerPheIleTrpProSerLeu 91
1252 TTCCCAATTTCAACAGCCCTTTTCTTAGGGGCGCTGCAATTTTGGCT 1203
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